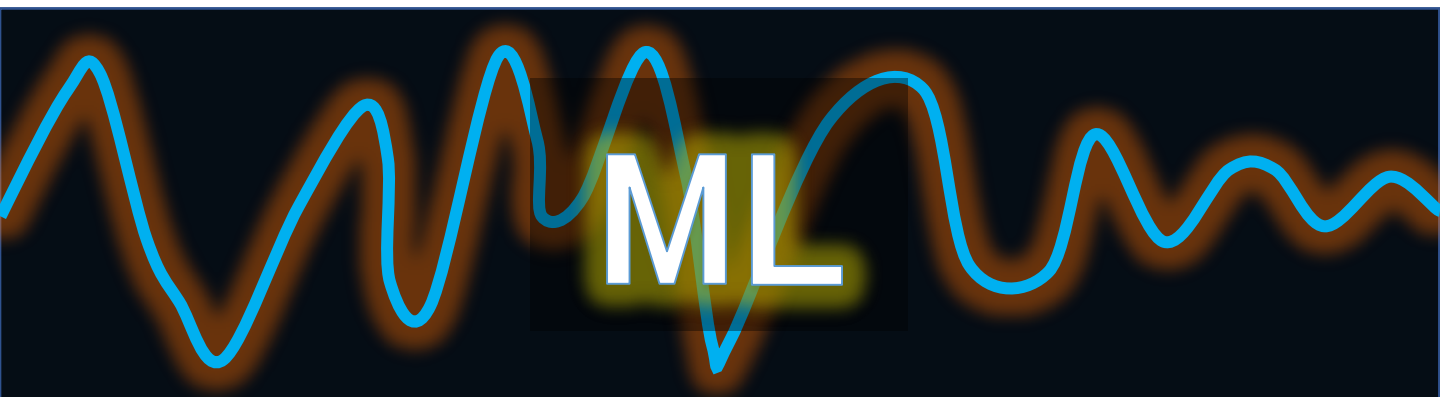


Modelling and Optimization of Signals Using Machine Learning Techniques



This Signal processing captures, interprets, describes and manipulates physical phenomena. Mathematics, statistics, probability, and stochastic processes are among the signal processing languages we use to interpret real-world phenomena, model them, and extract useful information. This book comprises chapters on key problems in machine learning and signal processing arenas. Traditionally, signal processing and machine learning were considered to be separate areas of research. However in recent times the two communities are getting closer. Nowadays signal processing research is gravitating towards operator learning – instead of designing operators based on heuristics (for example wavelets), the trend is to learn these operators (for example dictionary learning). And thus, the gap between signal processing and machine learning is fast converging. This book also presents the different kinds of signals that humans and machines use to communicate, and their treatments and applications. It will discuss various mathematical methods involved in Signal Processing & Machine Learning, thereby enabling the students to design their own models and optimize them efficiently. The Book will focus on mathematical principles, and there will be coding based assignments for implementation. Prior exposure to ML is not required. The Book will be focused on applications in signal processing and communication.

Indicative Themes for chapters

- Optical Communications
- Parallel and Distributed Processing PDE for Image Processing Signal Processing for Security Signal Processing Theory and Method
- Machine learning methods
- Learning and adaptive control Learning for Handwriting Recognition
- Learning robots Mining Images in Computer Vision Mining Motion from Sequence Neural Methods
- Feature extractions Support vector machines (SVM)
- Extreme learning machine (ELM)
- Artificial neural network (ANN)

Call for Abstracts

Max. length : About 250 - 500 words

Last date of submission of Abstracts :15 May 2021

How to submit: <https://easychair.org/conferences/?conf=moosmlt2021>.

Editors



Mr. Naveen Kumar S.



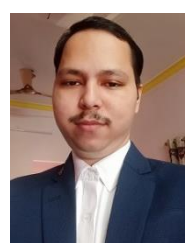
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